

Abstract of the Disclosure

Disclosed herein are an isolated polynucleotide comprising a lectin gene regulation site of a mud loach, expressed as SEQ ID NO: 1, an expression vector comprising a lectin gene regulation site of a mud loach, an expression vector comprising a lectin gene regulation site of a mud loach and a growth hormone gene of a mud loach, and an expression vector comprising a lectin gene regulation site of a mud loach and a growth hormone gene of a carp. Also provided a method of making a transgenic mud loach or carp comprising microinjecting the expression vector of a growth hormone gene into fertilized eggs of a mud loach or carp and culturing the eggs such that the eggs hatch and result in a mud loach or carp fish which expresses the growth hormone gene at levels which increase the rate of growth of the fish relative to wild-type mud loach or carp, and a mud loach or carp transformed with the expression vector. The transgenic mud loach or carp shows a stabilized improvement of growth rate without such adverse effect as excessive growth acceleration and has a significantly improved feed conversion efficiency, therefore, improving the culturing productivity.